

# NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

## FACT SHEET

(Pursuant to NAC 445A.236)

**Permittee Name:** Tahoe Ridge Winery & Marketplace, L.L.C.  
P. O. Box 2636  
Minden, NV 89423

**Permit Number:** NEV2004351

**Location:** Tahoe Ridge Winery & Marketplace  
1974 Foothill Road  
Minden, Douglas County, Nevada

Latitude: 38° 58.289' N  
Longitude: 119° 50.263' W  
Township 13N, Range 19E, Section 22

### **General:**

The Tahoe Ridge Winery & Marketplace, L.L.C., plans to construct and operate a commercial gourmet foods facility at the site of the historic Van Sickle Station Ranch, near Genoa, Nevada. At build-out, the facility will include a commercial winery, creamery, and brewery, along with a culinary school, business offices and guest accommodations. Tahoe Ridge Winery and Marketplace proposes the land application of filtered wastewaters associated with the wine production processes. Domestic wastewaters associated with culinary school, business offices, and guest accommodations at the facility will be addressed under a separate permit (NEV2004525).

Tahoe Ridge Winery proposes the land application of filtered, pH-adjusted wastewaters associated with the production of wines to a four (4) acre agricultural parcel, via flood irrigation. The proposed gravity flow treatment system will consist of a 25,000-gallon primary settling tank, followed by a filtration box for removal of large size solids, and a 2000-gallon tank for dosing of filtered wastewater with sodium hydroxide for pH control. Wastewaters will be drained from the winery production floor via floor drains directly to the settling tank, which will allow approximately two (2) days of retention time at the estimated peak flow rate of 10,000 gallons per day. Wastewater will discharge from the settling tank through the filtration box, and will accumulate in the 2000 gallon dosing tank. The pH of the filtered wastewater will be automatically sensed and adjusted using liquid sodium hydroxide, and the wastewater will be discharged via siphon to the four-acre agricultural parcel. The wastewater will be used to flood irrigate an as yet undetermined crop, which is intended to take up nitrogen and other growth nutrients. The Permittee will be required to harvest the crop, per an Effluent Management Plan that requires NDEP review and approval. Because of the proximity of the parcel to the Upper Brockliss Slough, the water quality of the ambient water will be monitored via appropriately sited monitor wells.

The permit will not allow the land application of winery wastewater to frozen, saturated, or flooded land. During those periods in which the winery process water cannot be applied to fields for agricultural purposes due to lack of crop, or flooded, frozen or saturated conditions, the Permittee may route winery process water to the denitrifying septic system administered under NDEP Permit

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NEV2004525, provided that only water used for general cleaning is routed to the septic system. High strength (BOD5 and TSS over 350 and 400 mg/l, respectively, from Wastewater Engineering, 4<sup>th</sup> Edition, Metcalf and Eddy, Page 186) may not be routed to septic system. This process stream will be monitored prior to introduction to the denitrifying septic system, and will be limited to a 30-day average daily flow of 1000 gallons per day.

**Flow:**                      30-Day Average:      0.003 MGD  
                                    Daily Maximum:      0.010 MGD

**Receiving Water Characteristics:**

Receiving water at this site is groundwater, which is reportedly encountered at approximately 1 to 5 feet below surface, dependent on season. The parcel slopes toward and is proximal to the Upper Brockliss Slough, which ultimately drains to the West Fork of the Carson River. The groundwater below the parcel is reported to flow in a generally eastward direction. Groundwater quality below the proposed application is unknown.

**Proposed Effluent and Groundwater Limitations**

The monitoring wells to be installed (MW-1, MW-2 and any other wells installed) up gradient and down gradient of the land application areas shall be limited and monitored according to the Table below:

<b><u>PARAMETERS</u></b>	<b><u>GROUNDWATER LIMITATIONS</u></b>	<b><u>MONITORING REQUIREMENTS</u></b>	
		<b>Measurement Frequency</b>	<b>Sample Type</b>
Depth to Water, ft	Monitor and Report	Quarterly	Discrete
Groundwater Elevation, ft AMSL	Monitor and Report	Quarterly	Discrete
Total Nitrogen as N, mg/l	10	Quarterly	Discrete
Nitrate as N, mg/l	Monitor and Report	Quarterly	Discrete
Total Dissolved Solids, mg/l	Monitor and Report	Quarterly	Discrete
Chloride, mg/l	Monitor and Report	Quarterly	Discrete
Copper, mg/l	Monitor and Report	Quarterly	Discrete
Total Phosphorus as P, (mg/l)	Monitor and Report	Quarterly	Discrete

The settled and filtered wastewater flow from the winemaking area will be sampled at the dosing

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tank, after pH adjustment and prior to discharge to the agricultural field. Discharge will be limited and monitored according to the Table below:

PARAMETERS	EFFLUENT LIMITATIONS		MONITORING REQUIREMENTS	
	30 Day Average	Daily Maximum	Measurement Frequency	Sample Type
Flow (MGD)	0.003	0.010	Continuous	Flow Meter
BOD <sub>5</sub> (mg/l)	M & R		Every Week During Crushing Season	Discrete
BOD <sub>5</sub> (lbs/acre/day)	100	300	Monthly	Calculation
TSS (mg/l)	Monitor and Report		Every 2 weeks During Crushing Season	Discrete
Total Nitrogen (mg/l)	25	40	Every 2 weeks During Crushing Season	Discrete
Nitrate as N (mg/l)	M & R		Every 2 weeks During Crushing Season	Discrete
Ammonia as N (mg/l)	M & R		Every 2 weeks During Crushing Season	Discrete
Copper (mg/l)	1.3		Every 2 weeks During Crushing Season	Discrete
Total Phosphorus (mg/l)	M & R		Every 2 weeks During Crushing Season	Discrete
pH (Standard Units)	6.0 to 9.0		Every 2 weeks During Crushing Season	Discrete

TSS = Total Suspended Solids  
M & R = Monitor and Report  
BOD<sub>5</sub> = 5-Day Biological Oxygen Demand

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**Schedule of Compliance**

The Permittee shall implement and comply with the provisions of the schedule of compliance after approval by the Administrator, including in said implementation and compliance, any additions or modifications that the Administrator may make in approving the schedule of compliance.

- a. **By October 31, 2005**, the Permittee shall submit a plan for appropriately sited monitor wells up gradient and down gradient of the application site for NDEP review and approval. These plans must include proposed well locations and well design(s), wet stamped by a Nevada registered professional engineer.
- b. **Prior to operation of the system**, the Permittee shall sample all monitor wells every two weeks for a period of eight (8) weeks, to establish baseline water quality data. The samples shall be analyzed by a Nevada certified laboratory for the following constituents: BOD<sub>5</sub>, TDS, and constituents listed in the attached Profile I suite of analytes.
- c. **By December 23, 2005**, the Permittee shall submit a design for review and approval, stamped by a Nevada registered professional engineer, for installation of a flowmeter and sampling access port on the line between the winery process water dosing tank and the application site, to be used for monitoring of actual fluid application to the site.
- d. **Prior to operation of the system**, the Permittee shall install the required flowmeter and sampling port.
- e. **Within 30 days of the issuance by Douglas County of the Notice of Occupancy for the winery building**, the Permittee shall submit an Effluent Management Plan for the application site, prepared and wet stamped by a Nevada Registered Professional Engineer.

**Special Conditions**

As stated, during winter months in which the winery process water cannot be applied to fields for agricultural purposes, the Permittee may route winery process water to the permitted denitrifying septic system, provided that only water used for general cleaning is routed to the septic system. High strength (high BOD<sub>5</sub> and TSS) wastewaters that are part of the winemaking process, including, but not limited to, grape juice, rejected wines, cask dregs, etc., may not be routed to the permitted septic system.

**Proposed Determination**

The Division has made the tentative determination to issue the proposed permit for a period of five (5) years.

**Rationale for Permit Requirements**

Each batch of wastewater discharged to the application site will be highly variable. The flow is measured to verify the flow to the treatment plant is consistent with permit limitations, and to

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determine compliance with the Effluent Management Plan. Effluent BOD<sub>5</sub>, TSS, and Total Nitrogen are monitored to verify compliance with permit limitations, which are in place to ensure protection of groundwater quality. Loading limits are consistent with other NDEP administered facilities, and are in place to minimize nuisance odors and/or vectors. Permit limitations on Total Nitrogen are set at 10 mg/l due to the shallow groundwater and the proximity of the Brockliss Slough, a major tributary to the Carson River. Nitrate and Ammonia as N are monitored to ensure groundwater quality is protected. Copper is monitored and limited because of potential degradation due to the inclusion of copper containing compounds in winery additives, laboratory reagents and cleaning compounds that will be drained into the system. Phosphorus is an element of concern in the Carson River Basin.

Groundwater monitoring is required to verify that groundwater of the State is not degraded.

**Procedures for Public Comment:**

The Notice of the Division's intent to issue a permit authorizing the facility to discharge to the groundwater of the State of Nevada, subject to the conditions contained within the permit, is being sent to the **Nevada Appeal** and the **Record-Courier** for publication. The notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit may do so in writing for a period of 30 days following the date of the public notice. All comments regarding this permit must be received or postmarked by **5:00 PM on November 5, 2005**. The comment period can be extended at the discretion of the Administrator.

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator or any interested agency, person or group of persons.

The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted.

Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determined to be appropriate. All public hearings must be conducted to accordance with NAC 445A.238.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

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